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REMARKS

Claims 1 to 27 are pending in this application. Claims 1, 12, 16, 22 and 24 are the independent claims. Claim 27 is new. Claims 1, 12 14, 16, 22 and 24 are amended. Even though claim 12 is allowed, Applicants have amended claim 12 to correct an antecedent issue. Favorable reconsideration and further examination are respectfully requested.

Initially, Applicants thank the Examiner and the Examiner's supervisor for conducting an interview on Thursday, February 7, 2008 with Applicants' undersigned representative. No agreement was reached between the Examiner and the Applicants with respect to the claims.

Claims 1 to 11, 13, 14, 16 to 18, 20, 22 and 23 were rejected under 35 U.S.C. § 103(a) as being obvious over Urmson et al., "Approaches for Heuristically Biasing RRT Growth" (hereinafter "Urmson") in view of Kindel et al., "Kinodynamic Motion Planning Amidst Moving Obstacles" (hereinafter "Kindel").

Claim 1 is directed to a method of planning at least one path for a vehicle in a state space from a starting position to a goal position to avoid a plurality of static and/or dynamic objects. The method includes (a) associating predetermined attributes with the plurality of static objects and/or the plurality of dynamic objects located in the state space. The state space is a probability space. The method also includes (b) generating a probabilistic tree in the state space including a plurality of branches extending from the starting position of the vehicle towards the goal position located in the state space and (c) extending the plurality of branches of the probabilistic tree towards the goal position located in the state space based on a plurality of random tree extension rules and a plurality of deterministic tree extension rules until satisfying a predetermined

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stopping condition and (d) evaluating at least a first branch of the plurality of branches of the probabilistic tree for determining whether the first branch of the plurality of branches of the probabilistic tree satisfies predetermined trajectory path constraints. The deterministic tree extension rules include a first deterministic rule to add a linear path and a second deterministic rule to extend the linear path by adding a turn such that at the end of the turn the vehicle is on a new heading that is closer to obtaining the goal position.

The applied art is not understood to disclose or to suggest the foregoing features of claim 1. In particular, neither Urmson nor Kindel disclose or suggest deterministic tree extension rules that include a first deterministic rule to add a linear path and a second deterministic rule to extend the linear path by adding a turn such that at the end of the turn the vehicle is on a new heading that is closer to obtain the goal position.

The Examiner has alleged that Urmson teaches deterministic rules. Applicants respectfully disagree. The Examiner has cited the Randomization vs. Determinism section at the end of the article. As understood by Applicants, the Randomization vs. Determinism section of Urmson merely suggests that deterministic rules should be looked at for further research and does not teach deterministic tree extension rules that include a first deterministic rule to add a linear path and a second deterministic rule to extend the linear path by adding a turn such that at the end of the turn the vehicle is on a new heading that is closer to obtaining the goal position.

The Examiner has alleged during the aforementioned teleconference that she has taken a broader interpretation of deterministic rules than Applicants' specification and that she has interpreted Kindel dynamic constraints to be deterministic rules. Applicants respectfully submit

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that the aforementioned claim amendments distinguish the claim invention over Kindel in that Kindel does not disclose or suggest deterministic tree rules that include a first deterministic rule to add a linear path and a second deterministic rule to extend the linear path by adding a turn such that at the end of the turn the vehicle is on a new heading that is closer to obtaining the goal position.

Accordingly, for at least the reasons indicated above, even if Kindel were combined with Urmson, the resulting hypothetical combination would not disclose or suggest deterministic tree extension rules that include a first deterministic rule to add a linear path and a second deterministic rule to extend the linear path by adding a turn such that at the end of the turn the vehicle is on a new heading that is closer to obtain the goal position.

Claims 16, 22 and 24 include the limitation of claim 1 that deterministic extension rules include a first deterministic rule to add a linear path and a second deterministic rule to extend the linear path by adding a turn such that at the end of the turn the vehicle is on a new heading that is closer to obtain the goal position. Applicants submit that the Urmson and the Kindel references should also be withdrawn with respect to claims 16, 22 and 24 for at least the same reasons as claim 1.

Furthermore, claims 14, 16 and 22 are further distinguished from the cited art in that the cited art does not disclose or suggest that the first deterministic rule to add a linear path includes a rule to add a linear path such that a heading and speed of the vehicle are constant.

For at least the foregoing reasons, Applicants request withdrawal of the art rejection.

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Applicants submit that all dependent claims now depend on allowable independent claims.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for withdrawing the prior art cited with regards to any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants submit that the entire application is now in condition for allowance. Such action is respectfully requested at the Examiner's earliest convenience.

All correspondence should be directed to the address below. Applicants' attorney can be reached by telephone at (781) 401-9988 ext. 123.
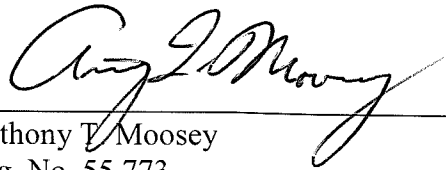
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No fee is believed to be due for this Response; however, if any fees are due, please apply such fees to Deposit Account No. 50-0845 referencing Attorney Docket: RTN-208PUS.

Respectfully submitted,

Date: 8 February 2008

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